

SYSTEM AND METHOD FOR DEBUGGING DISTRIBUTED SOFTWARE ENVIRONMENTS

Abstract of the Disclosure

- 5 A software system and method, using a coordination-centric approach, for debugging distributed software environments is described, wherein the distributed software environment produces event traces to be analyzed by a debugging host. Distributed software environments are connected to debugging hosts either directly or indirectly. In a direct connection, a processing element's runtime system collects
- 10 event records and sends them to a primary runtime debugging architecture, where the event records are time-stamped and causality-stamped and transferred to an event queue on the debugging host. An indirect connection uses an intermediate runtime debugging architecture, which facilitates the transfer of event records from the processing element to the event queue. Event records also may be collected and
- 15 stored on a flash memory for post-mortem distributed debugging. Event traces are made visible to the runtime system by inserting event recording calls at significant source lines in the distributed software environment.